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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,605	12/11/2001	Bharadwaj S. Amrutur	10010107-1	6541

7590 10/06/2004

AGILENT TECHNOLOGIES, INC.  
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EXAMINER

TORRES, JOSEPH D

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/020,605

**Applicant(s)**

AMRUTUR ET AL.

**Examiner**

Joseph D. Torres

**Art Unit**

2133



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 11-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I in the reply filed on 07 May 2004 is acknowledged.

This application contains claims 11-33 drawn to an invention nonelected without traverse on 07 May 2004. **A complete reply to the final rejection must include cancellation** of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Drawings***

2. In view of the Amendment filed 07 September 2004, the Examiner withdraws all objections to the drawings.

### ***Claim Objections***

3. Claim 4 is objected to because of the following informalities: It appears the Applicant intended claim 4 to depend from claim 3 not claim 5. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 5-8 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Adam; Joel Fredric et al. (US 6628725 B1, hereafter referred to as Adam).

35 U.S.C. 102(e) rejection of claims 1, 5, 6 and 34.

Adam teaches a scrambler for converting original received data into scrambled data (Scrambling Step 206 in Figure 2 of Adam teaches 48B/50B Encoder 104 in Figure 1 includes a scrambler for converting original received data from Control Character Encoding and Byte Reordering device 204 into scrambled data; Note: Control Character Encoding and Byte Reordering device 204 is a device for converting character control data into binary data, hence the binary data from Control Character Encoding and Byte Reordering device 204 is substantially original received data having no error correction redundancy bits added); and an ECC encoder for converting said scrambled data into ECC-encoded data (FEC Encoding Step 210 in Figure 2 of Adam teaches that FEC Encoder 106 in Figure 1 is an ECC encoder for converting scrambled data from 48B/50B Encoder 104 into ECC-encoded data).

35 U.S.C. 102(e) rejection of claims 2, 7 and 8.

Adam teaches Serializer 108 in Figure 1 of Adams for converting said ECC-encoded data from FEC Encoder 106 into serialized data and transmitting it; wherein the ECC-encoded data includes frame alignment information (Step 208 in Figure 2 of Adam teaches that a synchronization frame alignment information sequence is added to scrambled data, hence the ECC-encoded data from FEC Encoder 106 in Figure 1 includes a synchronization frame alignment information sequence); and the system further comprises a receiver for receiving said serialized data and converting the serialized data into data frames based upon the frame alignment information (Deserializer 112, Frame Aligner 114, FEC Decoder 116 and 48B/50B Decoder in Figure 1 of Adam comprise a receiver for receiving said serialized data and converting the serialized data into data frames based upon the frame alignment information).

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 3, 4, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adam; Joel Fredric et al. (US 6628725 B1, hereafter referred to as Adam) in view of Kimmitt; Myles (US 6738935 B1).

35 U.S.C. 103(a) rejection of claims 3 and 9.

Figure 4 of Adam teaches a frame-recoverer for converting said serialized data into data frames (Deserializer 112 and Frame Aligner 114 in Figure 1 of Adam comprise a frame-recoverer for converting said serialized data into data frames; see Step 402 in Figure 4 of Adam); an ECC decoder for converting said data frames into ECC-decoded data (FEC Decoder 116 in Figure 1 of Adam is an ECC decoder for converting said data frames into ECC-decoded data and error indications; see Step 404 in Figure 4 of Adam); and a scrambler for converting said ECC-decoded data into de-scrambled data (48B/50B Decoder in Figure 1 of Adam comprises a scrambler for converting said ECC-decoded data from FEC Decoder 116 into de-scrambled data; see Step 408 in Figure 4 of Adam).

However Adam does not explicitly teach the specific use of error indications.

Kimmitt, in an analogous art, teaches use of error indications (Parity Check Logic 186 in Figure 8 of Kimmitt is an ECC decoder for converting said data frames into ECC-

decoded data and error indications CE). Note: col. 17, lines 1-16 in Kimmitt teaches that error indications CE are used for frame alignment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Adam with the teachings of Kimmitt by including use of error indications. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of error indications would have provided the opportunity to synchronize frames during frame alignment (Note: col. 17, lines 1-16 in Kimmitt teaches that error indications CE are used for frame alignment).

35 U.S.C. 103(a) rejection of claims 4 and 10.

Adam and Kimmitt teach said frame-recoverer uses said error indications in converting said serialized data into data frames (Note: col. 17, lines 1-16 in Kimmitt teaches that error indications CE are used for frame alignment).

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### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kim; Dae J. et al. (US 5508752 A) teaches a partial response trellis decoder for performing trellis coded modulation in a high definition television (HDTV).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (703)

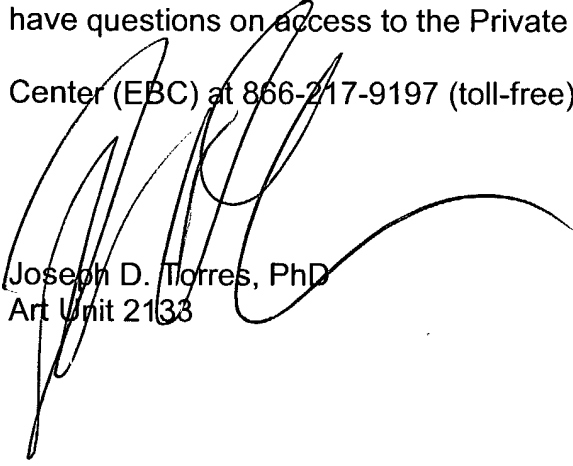
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308-7066. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (703) 305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph D. Torres, PhD  
Art Unit 2133